

## **STIC Biotechnology Systems Branch**

### **RAW SEQUENCE LISTING** **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/530,792  
Source: IFW/6  
Date Processed by STIC: 08-08-05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.2.2 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

**<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

## Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	SERIAL NUMBER: <u>101530,792</u>
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE</b>		
1 <u>    </u> Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <u>    </u> Invalid Line Length	The rules require that a line <b>not exceed</b> 72 characters in length. This includes white spaces.	
3 <u>    </u> Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do <b>not</b> use tab codes between numbers; use <b>space characters</b> , instead.	
4 <u>    </u> Non-ASCII	The submitted file was <b>not</b> saved in ASCII(DOS) text, as <b>required</b> by the Sequence Rules. <b>Please ensure your subsequent submission is saved in ASCII text.</b>	
5 <u>    </u> Variable Length	Sequence(s) <u>    </u> contain n's or Xaa's representing more than one residue. <b>Per Sequence Rules, each n or Xaa can only represent a single residue.</b> Please present the <b>maximum</b> number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <u>    </u> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) <u>    </u> . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. <b>This applies to the mandatory &lt;220&gt;-&lt;223&gt; sections for Artificial or Unknown sequences.</b>	
7 <u>    </u> Skipped Sequences (OLD RULES)	Sequence(s) <u>    </u> missing. If intentional, please insert the following lines for <b>each</b> skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to <b>include</b> the skipped sequences.	
8 <u>    </u> Skipped Sequences (NEW RULES)	Sequence(s) <u>    </u> missing. If <b>intentional</b> , please insert the following lines for <b>each</b> skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <u>    </u> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is <b>MANDATORY</b> if n's or Xaa's are present. In <220> to <223> section, please explain location of <b>n</b> or <b>Xaa</b> , and which residue <b>n</b> or <b>Xaa</b> represents.	
10 <u>    </u> Invalid <213> Response	Per 1.823 of Sequence Rules, the only <b>valid</b> <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is <b>required</b> when <213> response is Unknown or is Artificial Sequence	
11 <u>✓</u> Use of <220>	<del>Sequence(s) <u>    </u> missing the &lt;220&gt; "Feature" and associated numeric identifiers and responses. Use of &lt;220&gt; to &lt;223&gt; is MANDATORY if &lt;213&gt; "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in &lt;220&gt; to &lt;223&gt; section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)</del>	
12 <u>    </u> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <u>    </u> Misuse of n/Xaa	"n" can <b>only</b> represent a single <u>nucleotide</u> ; "Xaa" can <b>only</b> represent a single <u>amino acid</u>	



IFW16

## RAW SEQUENCE LISTING

DATE: 08/08/2005

PATENT APPLICATION: US/10/530,792

TIME: 10:20:33

Input Set : D:\3589.1015-008 Seq List.txt

Output Set: N:\CRF4\08082005\J530792.raw

4 <110> APPLICANT: Croce, Carlo M.  
 5 Calin, George A.  
 7 <120> TITLE OF INVENTION: NOVEL TUMOR SUPPRESSOR GENE AND  
 8 COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME  
 11 <130> FILE REFERENCE: 3589.1015-008  
 13 <140> CURRENT APPLICATION NUMBER: 10/530,792  
 C--> 14 <141> CURRENT FILING DATE: 2005-05-13  
 16 <150> PRIOR APPLICATION NUMBER: PCT/US2003/032270  
 17 <151> PRIOR FILING DATE: 2003-10-10  
 19 <150> PRIOR APPLICATION NUMBER: 60/417,842  
 20 <151> PRIOR FILING DATE: 2002-10-11  
 22 <160> NUMBER OF SEQ ID NOS: 14  
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 26 <210> SEQ ID NO: 1  
 27 <211> LENGTH: 3791  
 28 <212> TYPE: DNA  
 29 <213> ORGANISM: Homo sapiens  
 31 <400> SEQUENCE: 1  
 32 cacc caagtc tgag ttgcta aaaa atggag ctgt cactgg gcct tgc tct gccaggacct 60  
 33 gcag agccgg ggacctctct gtgg caagcc cagca agatg actg ctctga ggcgccctag 120  
 34 ggct gaggga ggggccgtga cacc agcccc gcccccagc cacctgggaa aaggaagcac 180  
 35 aaaa aggaga agcagcaacg gctg ctctgc ttccttccca tctcgctctt ggggtcatgcc 240  
 36 tggccagcag aaagcagctc cataggggag gagagccacg caggatctca cagctgcagt 300  
 37 ctaatagtaa cacagaggat tcagcagtgg ccaccatggg ttctgtgaat tccagaggtc 360  
 38 acaaggcgga agcccagggtg gtgatgatgg gcctggactc ggcgggcaag accacgctcc 420  
 39 tttaacaagct gaagggccac cagctgggtgg agaccctgcc cactgttggt ttcaacgtgg 480  
 40 agcctctgaa agctcctggg cagctgtcac tgactctctg ggacgttggg gggcaggccc 540  
 41 cgctcagagc cagctggaag gactatctgg aaggcacaga tatcctcgtg tacgtgctgg 600  
 42 acagcacaga tgaagcccg cttacccgagt cggcggctga gctcacagaa gtcctgaacg 660  
 43 accccaacat ggctggcgct cccttcttgg tgctggccaa caagcaggag gcacctgatg 720  
 44 cacttccgct gcttaagatc agaaacaggc tgagtctaga gagattccag gaccactgct 780  
 45 gggagctccg gggctgcagt gccctcactg gggaggggct gcccgaggcc ctgcagagcc 840  
 46 tgtggagcct cctgaaatct cgcagctgca tgtgtctgca ggcgagagcc catggggctg 900  
 47 agcgcggaga cagcaagaga tcttgatcca gacagagcag catatctttg ctcatacaaa 960  
 48 ctagaagaac cagctgatcc ttgagaaatt tacgcttagt ctatcaaaca agaaatgctg 1020  
 49 gcttggcccc gtggctcatg cctgtaatcc cagcactgtg ggagaccacg gtgggggaat 1080  
 50 cccttgagcc caggagttgg agagcaacat cacaacaccc catttctact aataatcaaa 1140  
 51 aaattggccg ggcattgggtg catgtgcctg tagtcccagc tacttgggag gctgaggcag 1200  
 52 gagaatcgct tgagcccaag aggtagagggt tgcagtgagc caagatcgcg ccactgcact 1260  
 53 ccagtctggg caacagagtg agaccctgtc tcaataataa taataataat aatgatgata 1320  
 54 ctctaagaaa aaaatctcaa catacttcat ttaatagctc gttaccaagt gtgaatgaag 1380  
 55 caatatgtca taatagagta gccactggtt gcataataat agagacctaa attctcaaat 1440  
 56 agggaaagag gttttaaaat caaatttgag gccagggtgca gtggctcatg ggcggaggag 1500

Does Not Comply  
 Corrected Diskette Needed

(pg-3)

## RAW SEQUENCE LISTING

DATE: 08/08/2005

PATENT APPLICATION: US/10/530,792

TIME: 10:20:33

Input Set : D:\3589.1015-008 Seq List.txt

Output Set: N:\CRF4\08082005\J530792.raw

```

57 ggcagattac ttgaggctag gagttcaaga ccagcctggc caacatgggtg aaaccccatc 1560
58 tctactgaaa atacaaaaat taggcatagt ggtgcacgcc tgcagtccca gctactcagg 1620
59 aggttgaggc agaagaatcg cttgaaccca ggaagtggag gttgcagtga gccgagattg 1680
60 tgctgctgca ctccagcctg ggtgaaaaag acaggctgtg tctccaaaaa gaaaaaaaaa 1740
61 agtcaaatc aaatatcatc tggacatgtc acaatggatc gcggatcctt atgagtgatt 1800
62 ttccccagtg gcccctgggg atgtgccact gtcactcaga agggcaagct aggcaggggc 1860
63 catccaacag caggggtctg caggttagac gttccctgcc ctgggacgct caccctggg 1920
64 caagaggctg gaagttcaca ccatccaaaa tttatccttg ttttttttct gatgctaatt 1980
65 agcctctccc gattttatga catcttgtgt tgatctttt caaaaactca ttttctttt 2040
66 tttccttctc ttttctcctt cttgtagcac atatctttcg ttaaagatca gatcaataaa 2100
67 atattttatt tattcattaa tttacaaaaa aaaacagagc atttagtttg tggcaaaaac 2160
68 actgagcttt cgaatatgaa tcatgtgctt taggtgggag ttgtgaattc tgaagataca 2220
69 gatgacagtg acgaatgcct tctgtctcat gattgacagg gaaaagggaag gttgaccata 2280
70 gcatcctaga aggtcatca ggtgatcatt acctagcatc catgaagcac ctgaaattat 2340
71 ttgcaaaatg ttacgctttg gaccattttt ccgggggaag agatccagaa ctttttacca 2400
72 gattttcaaa gacatctgtg actcccaaaa gttaacaatc actgatgtgg ttgtgtatc 2460
73 cctcatccaa cccagaaca ctttctgtaa tctgagttt ttaatggcaa gtggcctata 2520
74 tttagcacct gttctcatgt taaacagctc tgaatgttag atattctttc ttatcctgga 2580
75 ctggttctct ctatctctg agtaatgcag tataaattgg ccatcagtac cctcctaaaa 2640
76 tctgagatct gccaggcccc tcttctaaca ccaggttagg catgcttggg tatttccagt 2700
77 acttgtgagt caacatgttt caagacgctg tgttagacac tagggatgca aagatgaatg 2760
78 agataaggcc tcaggcctca tggaaaggta gacagtaaag acattactcc cataaaaaatg 2820
79 tgaggagaga gactcagttc agcaactgtt tattctgttt attgagcact tacttggacc 2880
80 aagcactgtg gtcttgggtg tttacataga ctgtctctaa ttctcacaac tctgcaaaat 2940
81 atatatattc ccattttata aaactacaaa ctgaggctca gagaagggtg gacctcttgt 3000
82 tgcttgaggc acagagttat aaagtaacat atctggaatt tgaaatgaga tctgtttagg 3060
83 gctaattgctg catttttcta caacatcatg cctctagaag gtttaagcta ggtaggcttt 3120
84 cagccagcag acatgatggg gagagccttc taataagagg gaagagactg cttggaagca 3180
85 tgaaggagg tgtaagaaag ataagtaagt cagtgtactt gcaacagagg cttgggatga 3240
86 aggggtgggtg aagttgacat cacgatagaa acaaaaactg gaatgggagt ttaggtccaa 3300
87 tttgggcaag gttgtttgaa tttcaataat caggggtttg ggtcaaggaa gaaaaatcat 3360
88 gggacttgcc atttaggagg ataattttgt ggtagtgtgg aggtgaaata aagagaaaag 3420
89 ggaaccttgg agctgggaag gcaggaaacc ggctagatga ccatcacaca gcaaaggagg 3480
90 gagtggaaga gagatgagaa aattgagagc tattattaag aaaaacagtt gagagaggaa 3540
91 gaatttgaag agggctcaag attttgagtc cacatgacag aaggactgga atgccatgaa 3600
92 ctggagaagg tgagcgtgga agaaccagga tgggacgggg ctggaacagc tgggttcagc 3660
93 ttttgagggg tgggtacgtg tttggttata gctgctttca gattgttcca ttatctgtac 3720
94 tccaacaac cctgccggat atatttggtg gctttcactc aaaaaaaaaa aaaaaaaaaa 3780
95 aaaaaaaaaa a 3791

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97 &lt;210&gt; SEQ ID NO: 2

98 &lt;211&gt; LENGTH: 196

99 &lt;212&gt; TYPE: PRT

100 &lt;213&gt; ORGANISM: Homo sapiens

102 &lt;400&gt; SEQUENCE: 2

```

103 Met Gly Ser Val Asn Ser Arg Gly His Lys Ala Glu Ala Gln Val Val
104 1 5 10 15
105 Met Met Gly Leu Asp Ser Ala Gly Lys Thr Thr Leu Leu Tyr Lys Leu
106 20 25 30
107 Lys Gly His Gln Leu Val Glu Thr Leu Pro Thr Val Gly Phe Asn Val

```

## RAW SEQUENCE LISTING

DATE: 08/08/2005

PATENT APPLICATION: US/10/530,792

TIME: 10:20:33

Input Set : D:\3589.1015-008 Seq List.txt

Output Set: N:\CRF4\08082005\J530792.raw

```

108          35          40          45
109 Glu Pro Leu Lys Ala Pro Gly His Val Ser Leu Thr Leu Trp Asp Val
110          50          55          60
111 Gly Gly Gln Ala Pro Leu Arg Ala Ser Trp Lys Asp Tyr Leu Glu Gly
112 65          70          75          80
113 Thr Asp Ile Leu Val Tyr Val Leu Asp Ser Thr Asp Glu Ala Arg Leu
114          85          90          95
115 Pro Glu Ser Ala Ala Glu Leu Thr Glu Val Leu Asn Asp Pro Asn Met
116          100          105          110
117 Ala Gly Val Pro Phe Leu Val Leu Ala Asn Lys Gln Glu Ala Pro Asp
118          115          120          125
119 Ala Leu Pro Leu Leu Lys Ile Arg Asn Arg Leu Ser Leu Glu Arg Phe
120          130          135          140
121 Gln Asp His Cys Trp Glu Leu Arg Gly Cys Ser Ala Leu Thr Gly Glu
122 145          150          155          160
123 Gly Leu Pro Glu Ala Leu Gln Ser Leu Trp Ser Leu Leu Lys Ser Arg
124          165          170          175
125 Ser Cys Met Cys Leu Gln Ala Arg Ala His Gly Ala Glu Arg Gly Asp
126          180          185          190
127 Ser Lys Arg Ser
128          195
131 <210> SEQ ID NO: 3
132 <211> LENGTH: 24
133 <212> TYPE: RNA
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Ribozyme
139 <400> SEQUENCE: 3
140 cugaugaguc cgcgaggacg aaac
142 <210> SEQ ID NO: 4
143 <211> LENGTH: 26
144 <212> TYPE: RNA
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Ribozyme
W--> 150 <221> NAME/KEY: misc_feature
151 <222> LOCATION: 1
152 <223> OTHER INFORMATION: n is complementary to the target mRNA flanking the
153      5' end of the structural domain
W--> 155 <221> misc_feature
156 <222> LOCATION: 26
157 <223> OTHER INFORMATION: n is complementary to the target mRNA flanking the
158      3' end of the structural domain.
W--> 160 <400> 4
W--> 161 ncugaugagu ccgcgaggac gaaacn
163 <210> SEQ ID NO: 5
164 <211> LENGTH: 25
165 <212> TYPE: DNA
166 <213> ORGANISM: Artificial Sequence

```

Invalid response  
 See item number 11  
 on error summary  
 sheet.

## RAW SEQUENCE LISTING

DATE: 08/08/2005

PATENT APPLICATION: US/10/530,792

TIME: 10:20:34

Input Set : D:\3589.1015-008 Seq List.txt

Output Set: N:\CRF4\08082005\J530792.raw

```

168 <220> FEATURE:
169 <223> OTHER INFORMATION: Oligonucleotide primer
172 <400> SEQUENCE: 5
173 ccatgggttc tgtgaattcc agagg 25
175 <210> SEQ ID NO: 6
176 <211> LENGTH: 25
177 <212> TYPE: DNA
178 <213> ORGANISM: Artificial Sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: Oligonucleotide primer
183 <400> SEQUENCE: 6
184 cagtggtcct ggaatctctc tagac 25
186 <210> SEQ ID NO: 7
187 <211> LENGTH: 24
188 <212> TYPE: DNA
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: Oligonucleotide primer
194 <400> SEQUENCE: 7
195 gccagcagaa agcagctcca tagg 24
197 <210> SEQ ID NO: 8
198 <211> LENGTH: 24
199 <212> TYPE: DNA
200 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: Oligonucleotide primer
205 <400> SEQUENCE: 8
206 ttcaggaggc tccacaggct ctgc 24
208 <210> SEQ ID NO: 9
209 <211> LENGTH: 23
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Oligonucleotide primer
216 <400> SEQUENCE: 9
217 gaggtatgta ttgaaagaag agg 23
219 <210> SEQ ID NO: 10
220 <211> LENGTH: 23
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Oligonucleotide primer
227 <400> SEQUENCE: 10
228 aacaaaaccc aataacaact cca 23
230 <210> SEQ ID NO: 11
231 <211> LENGTH: 21
232 <212> TYPE: DNA
233 <213> ORGANISM: Artificial Sequence
235 <220> FEATURE:

```

## RAW SEQUENCE LISTING

DATE: 08/08/2005

PATENT APPLICATION: US/10/530,792

TIME: 10:20:34

Input Set : D:\3589.1015-008 Seq List.txt

Output Set: N:\CRF4\08082005\J530792.raw

236 <223> OTHER INFORMATION: Oligonucleotide primer  
238 <400> SEQUENCE: 11  
239 cagaagacag tagctgatgt g 21  
241 <210> SEQ ID NO: 12  
242 <211> LENGTH: 21  
243 <212> TYPE: DNA  
244 <213> ORGANISM: Artificial Sequence  
246 <220> FEATURE:  
247 <223> OTHER INFORMATION: Oligonucleotide primer  
249 <400> SEQUENCE: 12  
250 gagcaaagat atgctgctct g 21  
252 <210> SEQ ID NO: 13  
253 <211> LENGTH: 23  
254 <212> TYPE: DNA  
255 <213> ORGANISM: Artificial Sequence  
257 <220> FEATURE:  
258 <223> OTHER INFORMATION: Oligonucleotide primer  
260 <400> SEQUENCE: 13  
261 gctgagtcca gagagattcc agg 23  
263 <210> SEQ ID NO: 14  
264 <211> LENGTH: 20  
265 <212> TYPE: DNA  
266 <213> ORGANISM: Artificial Sequence  
268 <220> FEATURE:  
269 <223> OTHER INFORMATION: Oligonucleotide primer  
271 <400> SEQUENCE: 14  
272 tctcgctgc agacacatgc 20

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 08/08/2005

PATENT APPLICATION: US/10/530,792

TIME: 10:20:35

Input Set : D:\3589.1015-008 Seq List.txt

Output Set: N:\CRF4\08082005\J530792.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; N Pos. 1,26



**VERIFICATION SUMMARY**

DATE: 08/08/2005

PATENT APPLICATION: US/10/530,792

TIME: 10:20:35

Input Set : D:\3589.1015-008 Seq List.txt

Output Set: N:\CRF4\08082005\J530792.raw

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:150 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:155 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4  
L:160 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4  
L:161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0